

## REMARKS

### I. Introduction

With the addition of new claims 19 to 22, claims 8, 10, and 14 to 22 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

### II. Rejection of Claims 8, 10, and 14 Under 35 U.S.C. § 102(e)

Claims 8, 10, and 14 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Application Publication No. 2002/0185555 ("Kobayashi et al."). It is respectfully submitted that Kobayashi et al. does not anticipate these claims for at least the following reasons.

Although Applicant does not necessarily agree with the merits of this rejection, but to facilitate prosecution, claim 8 has been amended herein without prejudice to recite that *the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the discharge direction of the fuel and the direction opposite the discharge direction of the fuel.* Support for this amendment may be found, for example, at page 2, lines 28 to 30 of the Specification and in Figure 1.

The Office Action contends that Kobayashi et al. discloses, referring, e.g., to Figures 8 and 9, a valve needle 7A and a valve sleeve 22. Referring to the "Examiners marked up figure 9" on page 5 of the Office Action, the Examiner is now considering the entire intermediate portion 22B (spanning between lower portion 22A and upper portion 22C) of element 22 spanning from the bottom of the annular recess 22D to the interface between intermediate portion 22B and upper portion 22C to constitute a collar of a valve sleeve, and the lower portion 22A to constitute a discharge-side region. However, even under the Examiner's interpretation, the lower portion 22A does not have a constant diameter or cross section that extends axially beyond element 7A (which the Examiner considers to be a valve needle) in both a discharge direction and a direction opposite the discharge direction. Indeed, there is no portion of element 22 (considered by the Examiner to constitute a valve sleeve) that has a constant cross section and a constant diameter that extend axially beyond element 7A in both a discharge direction and a direction opposite the discharge direction. In this regard, Kobayashi et al. does not disclose, or even suggest, a valve

sleeve wherein a constant decreased radial cross section and a constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the discharge direction of the fuel and the direction opposite the discharge direction of the fuel, as recited in claim 8.

As indicated above, Kobayashi et al. does not disclose, or even suggest, all of the features of claim 8. As such, it is respectfully submitted that Kobayashi et al. does not anticipate claim 8 or any claim that ultimately depends from claim 8. Accordingly, withdrawal of this rejection is respectfully requested.

### **III. Rejection of Claims 15 to 18 Under 35 U.S.C. § 103(a)**

Claims 15 to 18 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kobayashi et al. and U.S. Patent No. 6,382,532 (“French et al.”). It is respectfully submitted that the combination of Kobayashi et al. and French et al. does not render unpatentable these claims for at least the following reasons.

Although Applicant does not necessarily agree with the merits of the present rejection, but to facilitate prosecution, claim 15 has been amended herein without prejudice to recite that the constant decreased radial cross section and the constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the intake-side direction and a direction opposite the intake-side direction. Support for this amendment may be found, for example, at page 2, lines 28 to 30 of the Specification and in Figure 1.

As indicated above, the Office Action contends that Kobayashi et al. discloses, referring, e.g., to Figures 8 and 9, a valve needle 7A and a valve sleeve 22. As further indicated above, there is no portion of element 22 (considered by the Examiner to constitute a valve sleeve) that has a constant cross section and a constant diameter that extend axially beyond element 7A in both axial directions. In this regard, Kobayashi et al. does not disclose, or even suggest, a valve sleeve wherein a constant decreased radial cross section and a constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the intake-side direction and a direction opposite the intake-side direction, as recited in claim 15.

French et al. is not relied upon for showing a valve sleeve wherein a constant decreased radial cross section and a constant decreased wall thickness of the discharge-side region extend axially beyond the valve needle in both the intake-

side direction and a direction opposite the intake-side direction, as recited in claim 15. Indeed, French et al. does not disclose, or even suggest this feature.

As indicated above, the combination of Kobayashi et al. and French et al. does not disclose, or even suggest, all of the features of claim 15. As such, it is respectfully submitted that the combination of Kobayashi et al. and French et al. does not render unpatentable claim 15 or any claim that ultimately depends from claim 15. Accordingly, withdrawal of this rejection is respectfully requested.

#### **IV. New Claims 19 to 22**

New claims 19 to 22 have been added. It is respectfully submitted that new claims 19 to 22 add no new matter and are fully supported by the present application, including the Specification. Support may be found, for example, at page 4, lines 20 to 22 of the Specification and in Figure 1.

Since claims 19 and 20 depend from claim 8 and therefore include all of the features of claim 8, it is respectfully submitted that claims 19 and 20 are patentable over the references relied upon for at least the same reasons set forth above in support of the patentability of claim 8.

Since claims 21 and 22 depend from claim 15 and therefore include all of the features of claim 15, it is respectfully submitted that claims 21 and 22 are patentable over the references relied upon for at least the same reasons set forth above in support of the patentability of claim 15.

**V. Conclusion**

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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